

APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000300030037-5

26 SEPTEMBER 1980 TEL (FOUO 10/80) 1 OF 1

FOR OFFICIAL USE ONLY

JPRS L/9317

26 September 1980

Worldwide Report

TELECOMMUNICATIONS POLICY,
RESEARCH AND DEVELOPMENT

(FOUO 10/80)



FOREIGN BROADCAST INFORMATION SERVICE

FOR OFFICIAL USE ONLY

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

For further information on report content call (703) 351-2779 (political, sociological, military); 351-2780 (economic, science and technology).

COPYRIGHT LAWS AND REGULATIONS GOVERNING OWNERSHIP OF MATERIALS REPRODUCED HEREIN REQUIRE THAT DISSEMINATION OF THIS PUBLICATION BE RESTRICTED FOR OFFICIAL USE ONLY.

FOR OFFICIAL USE ONLY

JPRS L/9317

26 September 1980

WORLDWIDE REPORT
TELECOMMUNICATIONS POLICY, RESEARCH AND DEVELOPMENT
(FOUO 10/80)

CONTENTS

WORLDWIDE AFFAIRS

- Venezuela: Communications Conference Condemns News
Agencies
(PRELA, 31 Aug 80)..... 1

ASIA

JAPAN

- Data Communications Legislation Stalled for 3d Year
(Hironaga Kashiwagi; NIKKAN KOGYO SHIMBUN,
11 Aug 80)..... 3

NEAR EAST AND NORTH AFRICA

INTER-ARAB AFFAIRS

- Algeria, Tunisia's Data Processing National Policies Compared
(Habib Boulares, Francoise Hubscher; JEUNE AFRIQUE,
13-20 Aug 80)..... 5

SUB-SAHARAN AFRICA

INTER-AFRICAN AFFAIRS

- Technology Transfer in Africa Examined
(Habib Boulares, Francoise Hubscher; JEUNE AFRIQUE,
13-20 Aug 80)..... 7

- a -

[III - WW - 140 FOUO]

FOR OFFICIAL USE ONLY

APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000300030037-5
STATINTEL



APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000300030037-5
STATINTEL

APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000300030037-5
STATINTEL



APPROVED FOR RELEASE: 2007/02/08: CIA-RDP82-00850R000300030037-5
STATINTEL

FOR OFFICIAL USE ONLY

JAPAN

DATA COMMUNICATIONS LEGISLATION STALLED FOR 3D YEAR

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 11 Aug 80 p 12

[Article by Hironaga Kashiwagi]

[Text] The Ministry of Posts and Telecommunications consolidated "a plan to reinvestigate the long-pending legislation of the "Data Communication Law," and decided to shelve the said bill in lieu of presenting it to the next ordinary session of the Diet. The bill has a history of being scheduled for presentation at two past ordinary sessions of the Diet but has not been drafted. However, this time it was not even named as a bill scheduled for the next session of the Diet. The ministry indicated the following as reasons for this withdrawal: (1) In the light of the rapid progress in the data communications field, it is necessary to take a good look at the future direction. (2) Data communications is very important, and in the long run leads to a reorganization of the communication business. (3) With these points in mind, a large scale consensus must be obtained. Nevertheless, once again an important bill concerning the promotion and facilitation of Japanese data processing industry has still not materialized at a time when data communications are rapidly advancing. The industry concerned is questioning the Ministry of Posts and Telecommunications for their handling of telecommunications administration. Prevailing voices criticize the helplessness of the Ministry of Posts and Telecommunications for their telecommunication policy including the issue of an open communication circuit.

The Ministry of Posts and Telecommunications deems it very serious that American large data processing business enterprises have advanced into European nations and are about to control the market in the field of data communications wherein data processing and data exchange are managed using computers connected by communication circuits, and they judge it necessary for Japan to promote a speedy sophistication of data communications and to raise data communication business enterprises.

For this reason, the Ministry of Posts and Telecommunications, in their determination to administer matters related to the raising of the data processing service industry, complained about the content of "the bill for

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Temporary Measures for Sophistication of Specified Machinery and Information Industries (Law on Temporary Measures for Specified Machinery and Information Industries)" which had been scheduled to be presented by MITI at an ordinary session of the Diet opened in December 1977, and requested this particular area to be removed from the bill.

This conduct delicately reveals a "dispute over the territories" between the two ministries saying, "we must not let MITI take control at least of the communication field."

Therefore, the Ministry of Posts and Telecommunications have decided to legislate independently a "Data Communication Promotion Act" and planned to introduce it at an ordinary session of the Diet which started from December 1978. At that time they thought of setting up an "Association for Data Communication Promotion Works" to pursue the sophistication of data communications by "the government and the people in one," with the primary objective of facilitating a data processing industry. Nonetheless, the Ministry of Posts and Telecommunications concentrated their total energy on the "Law on Communication and Broadcast Satellite Machinery and Systems" (passed), and consequently they gave up the idea of presenting the data communication bill to the Diet.

They had deliberated the ideas of introducing the bill once more as it had been scheduled before under a different name, "Data Communication Law (bill)" at an ordinary session of the Diet, cancelling the plan to establish an "Association," and taking some legal measures for an extensive data communication system and the like. They had been investigating different approaches by making inquiries to Nippon Telegraph and Telephone Public Corporation, Kokusai Den shin Denwa, Co., Ltd. (KDD) and users, but they could not formulate a draft as they wanted it to be and reluctantly had to let it go without being able to present it to this session of the Diet.

The fact, as described above, that the Ministry of Posts and Telecommunications was unable to present their own "Data Communication Law" two times may well be the reason that their capability as an agency in charge of telecommunication administration shall be once again in doubt. Even some of those concerned within the Ministry are heard to say, "We cannot deny a lack of preparation."

However, the truth is that they were pressed by the need to start from scratch once again due to the following extremely complex and crucial issues: Nippon Telegraph and Telephone Public Corporation and KDD alone are allowed to monopolize communication business under the Public Telecommunication Law in effect; whether or not to legislate the data communication law simply to aid the data processing trade; initiating of open communication circuit. This fumbling unexpectedly exposed a notion which has been often heard: "The Ministry of Posts and Telecommunications does not have any policies for telecommunications."

COPYRIGHT: NIKKAN KOGYO SHIMBUNSHA 1980

8940

CSO: 8129/1630

FOR OFFICIAL USE ONLY

INTER-ARAB AFFAIRS

ALGERIA, TUNISIA'S DATA PROCESSING NATIONAL POLICIES COMPARED

Paris JEUNE AFRIQUE in French 13-20 Aug 80 p 66

[Selection from a report on "Technology and Us" by Habib Boulares and Francoise Hubscher: "How To Use Data Processing Correctly: To Balance and Diversify Investment in Equipment, but Foremost: To Train Personnel"]

[Text] There is some pressure in a number of developing countries to create a data processing strategy, integrated in the national planning, after the disorderly acquisition of data processing equipment. The cases of Algeria and Tunisia are quite illustrative in this respect. Throughout the sixties, data processing activities in these two countries were confounded with two national societies (SONATRACH in Algeria, and CNSS [National Committee for Social Solidarity] and STEG [Tunisian Gas and Electricity Company] in Tunisia).

Increased Efforts

Only by 1970 did the Algerian Government finally create a national data processing agency and a research and analysis institute for data processing. In Tunisia, the government waited even a few more years to create various training centers; and particularly to organize its National Data Processing Commission (1974) which initiated a series of studies through administrative and private circles. The result was, in 1976, creation of National Center for Data Processing (CNI). This center is charged with preparation of a national data processing plan (PNI), while at the same time "insuring that various departments of administration, public enterprises and establishments have coherent data processing programs" [in italics]. But the GNP shares for data processing is still modest in Algeria and Tunisia: 0.39 percent in Algeria (1974) and 0.56 percent in Tunisia (1977). For comparison: currently in the United States, Europe and Japan these shares are respectively 3 and 2.5 percent of a GNP without common measure with those of Maghreb countries.

On 1 January 1978, there were 95 computers in Algeria and 175 in Tunisia, of which, it should be said, some 114 were small capacity computers. Qualified personnel is by far the most critical problem. In Tunisia, data processing specialists (engineers, analysts and programmers) numbered 536 in 1977, it is estimated (a shortage of almost 120 specialists). To correct this situation,

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Algeria and Tunisia have decided to increase their efforts. The Algerian data processing plan, adopted in 1978, has delineated a veritable strategy toward using, in 1985, some 500 to 600 computers (some 0.85 percent of the GNP); total manpower (every level combined) would be around 26,000 to 30,000 persons. This program of action includes three components: A better balance between sectors of economy, allowing the outfitting of those not yet equipped with data processing systems; A diversification of equipment, together with the first steps toward a basic data processing industry; - a training program.

Data Processing Perception

Evolutions of data processing in Tunisia have been outlined until 1981 (the last year of the Fifth 5-Year Plan): they include an increase of the data processing share in the GNP, up to 1 percent (which would result in doubling the equipment investment); development of training in, adjustment and perception of data processing; definition of an adequate policy to equip the state administration, agriculture, manufacturing industries and public works with data processing capabilities. Total manpower involved in data processing (every level combined) should grow from 1300 to 2900 in 1981. Such a proposed expansion should not result in a sacrifice of qualifications.

Therefore, a certain perception of data processing phenomena and of its importance exists in Algeria and Tunisia. But this perception, no matter how favorable it can be, does not eliminate the serious obstacles facing introduction of data processing in developing countries.

COPYRIGHT: Jeune Afrique GRUPJIA 1980

9627
CSO: 5500

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

INTER-AFRICAN AFFAIRS

TECHNOLOGY TRANSFER IN AFRICA EXAMINED

Paris JEUNE AFRIQUE 13-20 Aug 80 pp 42-44, 48-50, 55, 56

[Selected items of report on "Technology and Us" by Habib Boulares and Françoise Hubscher]

[Text] This special JEUNE AFRIQUE issue about technology is based on the data processing revolution and the increasingly important place that the computer will occupy in our lives.

It is difficult to imagine all the possibilities for using that magical instrument and all the implications of its introduction into our daily lives. It makes one dizzy to think about the hungry of Ouganda, the peasants of High Volta or the craftsmen of Atlas. In the face of the extent of the abyss separating the two worlds, a feeling of discouragement arises and overwhelms us.

French President Valéry Giscard d'Estaing said some time ago that the future of France was in electronics, atomic energy and aeronautics. Where would the future of our countries lie? The boost is such--the drive as the British call it--that one feels like a powerless observer at a race between a rocket inhabited by the industrialized West and a mass of so-called Third World countries, travelling on foot or by cart. Reality is quite more complex and fortunately more delicately shaded. Nevertheless, the computer is part of our daily life. The world goes from discovery to discovery and technology from one innovation to another. It is the role of a widely circulated journal to echo an effort which involves the whole world. JEUNE AFRIQUE did it last year and does it again this year. And the report that we present here reflects this multifaceted reality.

Preparing the Ground in Africa

The time of intermediate steps is over. The Third World objects to the idea of rudimentary technology.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

The African Jump Seat

Perhaps the real revolution of this second half of the 20th Century is the transformation of the whole world into a consumer market. If it is true that technological innovation is borne in areas of "advanced" development, for reasons of industrial concentration, it is also true that the products of that innovation spread everywhere relatively fast, upsetting the theoretical stages of an evolution mistakenly conceived as linear. So it is with the computer.

Transistor and Dromedary

Computers are commonly used in banks, air travel agencies, general official payrolls and even in some research offices. Some African countries have computerized their national budgets. Wherever we are, we are surprised, even concerned, about the reliability of an airline reservation when the travel agency employee looks up a regular flight "by hand" instead of ticking on the keyboard! We are no longer astonished when we have to go through the electronic control gate before boarding a plane; it is the absence of the gate that astonishes! And by placing ourselves at a certain angle, we can see the contents of hand luggage on the screen of X ray machines which policemen of all nationalities have learned to manipulate with a certain phlegm.

Some 10 years ago a European sociologist eagerly stressed the ease with which the inhabitants of so-called underdeveloped countries adopted the products of the most advanced technologies. The astonishment of that sociologist would be today...astonishing. The image of a Touareg listening to his "transistor radio," atop his unperturbed dromedary is no longer a curiosity for the comic strips. And the POLISARIO soldiers in the Western Sahara use a sophisticated equipment to remain in permanent contact with their bases in Algeria, Mauritania or elsewhere.

Indeed, it could be said that the cassettes dispatched to Iran or "repeated" by telephone played an important role in the success of the Ayatollah Khomeyni. But it is not for us to manufacture and much less to invent. Indeed!

It can be said that the assembly plants for transistor radios and television sets do not improve technological knowledge in our countries; but they undoubtedly improve the skills of a labor force that is no more stupid or less educated than the mass of workers in Japanese factories. Innovation is the result of work done in laboratories and engineering offices and not in the manufacturing shop. And there is no doubt that we would need both levels: engineering (in a broad sense) and labor, to really accede to the technological age. From many points of view it can be said that Africa is awakening, to tie both levels together.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Advanced Research

The recent UNDP conference held in Nairobi from 12 to 20 May, 1980, brought together technicians and experts from all the African countries (see JEUNE AFRIQUE No 1013). It revealed the existence of advanced research in many fields involving the application of technology to development. Above all it demonstrated that, if the Africans really wanted to develop and rationalize technical cooperation among themselves, the race mentioned in the introduction would no longer resemble one between a rocket and a cart. It is possible to replace the cart by a train where each would have a role to play. It is equally possible to obtain a seat, perhaps a jump seat but a seat nevertheless, aboard the rocket.

The most advanced sectors are in fact not limited to those mentioned by the French president. For example, to atomic power we must add solar power.

Events must also be brought into perspective in the field of aeronautics and space. There is no doubt that Africa is not ready to launch any rockets. But why would it do so? And how many countries in the world which already possess expert technologies could launch a rocket?

Adoption

It is not a question of knowing whether each country should have its own meteorological, teledetection or topographical satellite. There would be an unqualified waste: the question is to know how to use those which exist. In brief, to use the sociologist's expression, it is a matter of "adopting" a technology. What does it matter if the scanner is manufactured in the United States or in France. The important thing is that the hospital be equipped with it and that national physicians and medical personnel know how to use it and how to "read" the images that the device provides.

In matters of technology, many misunderstandings have knowingly and sometimes innocently endured regarding the Third World. Thus we have seen the concepts of intermediate technology, adopted technology and technology transfer appear.

Those are outdated formulae. We are beginning to understand today why the Third World refuses systematically to be condemned to a rudimentary technology with the excuse that it is more within its reach. Third World public opinion increasingly influences us to accept the concept of an endogenous technological progress, that is, meeting national needs with an autochthonous effort, and the adoption of technological knowledge which is the patrimony of all of humanity.

FOR OFFICIAL USE ONLY

In the following pages we have wanted to cite several examples based on the African experience. Referring to our continent, these examples are taken from the remarkable report prepared for the Nairobi conference mentioned before, by Dr Aklelu Lemma, internationally famous Ethiopian biologist attached to the United Nations Conference for the Use of Science and Technology in Development and "lent" for several months to the UNDP. Dr Lemma--whose works, by the way, permitted the discovery of an efficient means to fight bilharziosis--talked about all the African experiences in matters of science and technology applied to development.

We decided against mentioning the many experiments, the centers of research and training, the institutions of coordination and the techniques which are an extension of Africa of methods or therapies used elsewhere, although all those efforts are important and deserve to be developed. We have chosen to illustrate our point in this JEUNE AFRIQUE plus, with examples taken from several fields where an original effort is displayed.

Applicable Technology

First, solar technology. Not many people know what is being done in Africa: in Niger, Mali and Rwanda. Research results and the start of industrial production concerning that renewable source of energy deserved to be brought to the attention of the greater public.

Then, teledetection. Because Africa is an immense field of vegetable, animal and mineral resources which are insufficiently known. Because teledetection implements an advanced technology that brings together the space engine and the computer. Finally, because we think that all the African countries will develop it much sooner than it is commonly believed and that it is essential to tell the public that efforts are being put forth in this field too.

And last, we cannot speak about applied technology in Africa without mentioning agriculture, which employs 80 percent of the continent's population, and the drought which plagues many countries in the Sahel.

Information

The example of agricultural mechanization cited in this issue is chosen from a range of many experiences. If the Tinakbi tractor of Swaziland is put in the limelight, it is because it illustrates the original research work bringing together a university and an industrial production unit; because it is born of the researchers ingenuity and responds to a social and economic situation where it is difficult to generalize mechanization due to the costly "transfer" of the developed world's technology.

FOR OFFICIAL USE ONLY

These illustrations do not intend to give a good mark which would bring about a lull in the efforts. Many fields deserve more efforts than are being undertaken. Especially with respect to the struggle against drought, which should interest not only the affected countries and the international organizations, but also all the countries neighboring the Sahara and all the technicians of the continent.

In Africa's specific situation, showing the ultimate in advanced technologies as we do in the pages devoted to data processing, does not necessarily equal measuring the abyss separating the developed world and a world arriving at the threshold of the industrial era. It also spreads knowledge and facilitates the circulation of information.

A Place in the Sun

From solar energy water heater to solar energy air conditioner: Africa moves toward advanced technology.

If one resource is not lacking in Africa, it is certainly solar energy. However, to tame it and especially to industrialize the devices which use it, there are less projects that one would have the right to expect from 50 independent countries in the continent.

The best known institution is the ONERSOL (Nigerian Solar Energy Office), which dates from 1965. But there is also an organization in Sudan: ISERER (Institute of Solar Energy and Environmental Research), the Laboratory of Solar Energy in Bamako (Mali) and the Rwandan Center of Applied Energy (CEAER). In all, four organizations whose activities go beyond basic research and into practical applications, even industrial production. On a continental scale it is not much. But the progress achieved in this field proves that Africa can make an important contribution to the diversification of energy sources.

The Kick-Off

We must really go back to 1970 to realize that solar energy research was already on its way in Niger. And it was in light (if we may say so) of the results obtained that a law creating the ONERSOL was enacted on 15 May, 1965, giving the institution legal status and financial autonomy. For 5 years research cornered the attention of the ONERSOL personnel. Since 1971, the office has installed some 30 water heaters in private residences and public establishments as well as some 10 solar distillers. With a capacity of 100 to 1,000 liters for the water heaters and 10 to 25 liters for the distillers, these devices, which proved their efficiency, did not deserve to be left as simple testimony to successful laboratory research. It was necessary to go into production in series.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Urgent Cooperation

The ILO cooperated in the feasibility study of an industrial production factory which was in fact built in Naimey in 1976. Its production does not seem to have reached spectacular levels, but the diversification of its activities has already permitted going from the stage of direct utilization of solar energy to implementation of conversion devices. Thus, with the help of the German company Spilling, the office has implemented an engine to convert solar energy into mechanical energy, which is being marketed under the ONERSOL brand. The ONERSOL received much financial assistance from: FAC (European Community Aid and Cooperation Fund), the UNDP, UNESCO and the Libyan government and, finally France and FRG supplied machines. The ONERSOL could have become, and still can, the central piece of an industry integrated at the African level, at least in the west of the continent: aluminum sections, glass and fiberglass are imported from Europe, while the raw materials exist in the region.

For such an advanced industry using a renewable source of energy one could not insist too much on the need for all the African countries to become aware of the usefulness of developing urgently a technical and economic cooperation.

Four solar devices have been invented and tested: a water heater, 150 of which are operating in public or private buildings, a large solar dryer (for meat, fish and fruit), a solar stove and a 1,000-cubic-meter water distiller. The laboratory has also installed 529 solar pumps with flat collectors and two others with photocells.

It is installing a 75 kw solar generator and carrying out research on refrigeration, air-conditioning, drying, biogas production, and appropriate equipment to manufacture solar energy devices.

It is difficult to compare the Bamako laboratory and the ONERSOL of Naimey. We can nevertheless stress that the Malian institution has not yet become fully engaged in the industrial field. Progress carries this price and implies an intensification of technical and economic cooperation in the region.

Thirteen Countries...

The child of the oil crisis, CEAER was born in 1974 in association with the national university, which finances jobs by competition at a third of the budget. This center also installed solar water heaters and distillers. Its originality seems to be the study of the relationship between solar collectors and absorption machines for refrigeration of agricultural products. The CEAER is equally interested in the utilization of peat, since peat bogs cover a large part of the country.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

One has the impression that little is needed for the solar energy sector to experience a spectacular boost in Africa. All over, experiments have been made. The first solar pump of Africa was installed in 1968 in the Institute of Physics at Dakar. Similar pumps are operating in Algeria, Egypt, High Volta, Kenya, Madagascar, Mauritania, Cameroon, Chad, and, of course, Mali and Rwanda. Others are being installed in Cape Verde and Tanzania. Thirteen of 50 African countries are experiencing, at one level or another, the practical utilisation of solar energy. When will we see the generalization of procedures and industrial production?

Mechanical Bull: the "Tinkabi"

2,500 African tractors to change the life of the small farmer.

Agricultural mechanization is an option that has several degrees. From the day man used a wooden tool to turn the soil or to gether a fruit from a branch beyond his reach, he entered the age of agricultural mechanization. Today they are luxurious paradises under glass where man's involvement is limited to pressing a button: automation provides many possibilities to handle all the chores. Between these two extremes, the choice of tools is still a function of knowledge, financial means and industrial production.

On the Mountain

So often has the tractor been identified to agricultural progress that it has become the symbol of progress. Hence, the rush of industrial firms to the markets of the Third World and the rush of farmers toward these costly machines. However, what is a tractor but a simple cart moved by an engine.

Starting from this simple idea and the realization of the inadequacy of imported engines to the rocky mountainous land, the university of Botswana-Lesotho-Swaziland has created what they call a "mechanical bull," or tinkabi in the local dialect. The Tinkabi tractor is produced today in Swaziland by the National Industrial Development Corporation. It costs the buyer \$3,000 or 600,000 CFA francs, 5 or 6 times less than imported tractors. It can be repaired by the village forgers. It can be tied to any other agricultural tool: ploughshare, harrow, etc. Twenty were produced in 1972, 300 in 1973, 100 in 1974, 200 the following years; and the program can now produce 2500 units per year. Besides the farmers of Swaziland, those of Mozambique, Malawi, Kenya, Lesotho and even South Africa and the United States (!) have tried this Tinkabi and been satisfied with it. Several units were sent to be tested in Great Britain, Zambia and Tanzania.

It consists of a chassis with an integrated fuel tank set up on 4 wheels 65cm above the ground to leave space for parts (ploughshare, for example) that are detachable and especially retractable when the tractor must pass

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

over hard rocks. The driver is seated in the back of this 2.10m cart, next to the engine and has a platform that is 1.5m long, more than 1m wide and capable of carrying a one-ton load. Its speed does not exceed 10km/h. That is enough to farm one hectare a day.

Indisputable Response

Obviously it is an engine for small farms. But isn't that what counts the most (in every sense of the word) in the developing countries.

By choosing the example of the Tinkabi and making it better known to French-speaking readers, JEUNE AFRIQUE is only spreading an information that concerns the technological progress carried out in one region of Africa.

It is a matter of stressing the existence of a technological potential and a know-how not reasonably used throughout the continent. It can be said that the Tinkabi is not a tractor. Undoubtedly. But doesn't its on site, simple and cheap production and within reach of almost all the African countries help to meet many objectives? To improve production and reduce fatigue, while saving national currency is the generally avowed goal of most governments. The Tinkabi, in a specific domain, supplies an indisputable answer. We are far from advanced technologies, but isn't technological progress the fruit of an adoption of know-how and its adaptation to the needs?

When the Sky Searches the Forests

Teledetection makes a timid appearance in Africa. Since it is a continent whose richness of soil and subsoil are not fully known, it can be said that it is time the African governments start thinking about this recent method of drawing up by satellite the inventory of hidden resources.

But in this field as in any other technological sector, preparing men in the prerequisite to mastering the instrument. The UN Economic Commission for Africa (CEA) had already adopted in February 1975 resolution 280 (XII) allowing the creation of an African Council on Teledetection. It was not until 1979, however, that such an institution was officially established in Addis-Ababa.

Quite fortunately, some African countries did not wait for the realization of that project to become fully involved in that path. There are already teledetection centers in Cairo (Egypt), Ouagadougou (High Volta) and Nairobi (Kenya). The one in Cairo, especially, is well developed and many of its specialists have reached a degree of competency which allows them to participate fully in the training programs elaborated in the other centers. The

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Ouagadougou center organized four training courses on a regional scale. The one in Nairobi organized two seminars for trainees of the eastern African countries.

The African Teledetection Council will supervise the implementation of three receiving stations for satellite images in Ouagadougou (for Africa's west), in Nairobi (for the eastern subregion) and in Kinshasa (for central and southern Africa). Two other training centers will also be installed in He-Ife (Nigeria) and Kinshasa (Zaire).

There is another level at which the technical cooperation between African countries can be developed. The cost of operations, the need to bring together African and foreign resources to carry out the study of humid tropical forests and reforestation and the inventory of mineral resources demand actions which can only be carried out, for the present, on a regional or subregional level.

The Resistible Advance of the Desert

Committees, institutes and data banks are not enough to stave off a calamity which keeps on spreading.

The struggle against drought in the Sahelian region makes a lot of ink flow where one would like to see water flow. That does not mean that commendable efforts have not been undertaken by the governments and the international community in the field of understanding the phenomenon, at the level of personnel training and in the sector of agronomic research.

At the government level, the eight African countries most affected by the great drought which raged for 5 years, from 1968 to 1973, formed the CILSS: Inter-State Committee to Fight the Drought in the Sahel. It is an institution of cooperation which brings together Cape Verde, Gambia, High Volta, Mali, Mauritania, Niger, Senegal and Chad. It could have also included Algeria and Libya, whose Saharan regions are equally affected. The adherence of these two countries would have brought the CILSS part of the financial assistance it needs.

Coordination

The CILSS created the Institute of the Sahel, which is operating since 1976 in Bamako, Mali, and which tries to play a catalysing role for national and regional activities. Since March 1979, it established a network of scientific and technical documentation.

Nevertheless, the extent of these activities is not enough to make a dent in any of the sectors for which it is responsible. The institute aims, in fact, to assure food self-sufficiency of the interested countries,

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

rationalize the management of waters, improve specific knowledge of the environment, form a nucleus of researchers and agricultural planning technicians, etc.

Each of these sectors of activity needs considerable efforts and implies the involvement of diverse international organizations such as the FAO (for agriculture), the MMO (World Meteorological Organization), the UNEP (UN Environmental Program), not forgetting the UNDP, the World Bank, the Conference for the Application of Science and Technology to Development, etc. That poses problems of coordination, budgeting interferences and choices of methods; these are rarely easy to solve and increase the delay in a field where time is a question of life and death. The worst of it all is that no one can be blamed: each party in this dramatic affair puts forth the effort that its means permit. Thus, we must recall the many meteorological study centers established in many African countries and the exchange of information among them. In West Africa, the center of Niamey, directly related to the Sahelian region, deserves mentioning.

New Horizons

The Center of Training and Application in the Fields of Agrometeorology and Hydrology created in Niamey as part of the OMM activities has the objective of strengthening the agrometeorological and hydrological services to CILSS countries.

The element "training" in the center's program is, without doubt, important. But Agrhymet has a stated technological vocation. Based on some data registered during the last few years, it tries to sharpen the knowledge of the relationship between climate and crops, to improve soil exploitation and to tackle the causes of the recurrent periods of drought.

Parallelly, it tries to make sure that meteorologic and hydrologic knowledge is constantly applied in the region by citizens of the involved countries. The long-term objective is, thus, to reduce the effects of the catastrophes. But the implementation of ultramodern means (teledetection, following by satellite the meteorological evolution, permanently feeding the data banks, etc.) could open more promising horizons for the conservation of humidity in the soils. It is no longer a mere dream, even if it is not reality yet.

COPYRIGHT: Jeune Afrique GRUPJIA 1980

9341

CSO: 5500

END

FOR OFFICIAL USE ONLY